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FOREST INSECTS AND DISEASES IN PRINCE EDWARD ISLAND NATIONAL PARK IN 1991

Personnel of the Forest Insect and Disease Survey of Forestry Canada - Maritimes Region regularly survey national parks for forest insect and disease conditions. This report briefly discusses some of the forest pests encountered this year in Prince Edward Island National Park. Overall, damage by forest pests appears to have decreased from 1990 but the following were observed causing damage.

SPRUCE BEETLES, which usually attack stressed mature and overmature spruce trees, killed 15% of the white spruce trees in a small area near campsite 24 at Rustico Island campground. These trees, like many of the trees along the footpaths and camping areas in the Park, are under stress from people-pressure disease, as well as the effects of onshore wind, salt spray, and spruce budworm defoliation.

GYPSY MOTH is a major pest of forest and shade trees in southern Ontario, southern Quebec, and the northeastern United States and, since the 1980s, has been found in southwestern New Brunswick and western Nova Scotia. The hairy larvae are easily recognized by the five pairs of blue and six pairs of red dots along their back. Twenty-five gypsy moth pheromone traps were placed by Parks personnel in 1991, as part of the province-wide gypsy moth monitoring program. There were 11 positive traps with an average of 0.6 moths per trap. This represents an increase from previous years and is consistent with the general increase in trap catches experienced throughout the rest of the Maritimes. A considerable portion of the adult moth catches are believed to have been blown in on storm fronts from the New England states. Since no other life stages of the gypsy moth were found in the Park, or elsewhere in P.E.I., it is likely that there is no resident population. Visitors are requested to report any suspected gypsy moth to Park personnel.

SPRUCE BUDWORM defoliation of white spruce and balsam fir decreased from 1990 levels with only trace (1-5%) and light (6-29%) defoliation observed. Highest defoliation level (9%) was recorded on white spruce at Rustico Island and Cape Turner.

WIND is a detrimental factor in the Park as it injures leaves and breaks branches and leaders, which ultimately stunts and deforms the trees. Wind also blows salt-laden air from the ocean onto the trees, causing further stress. This year, onshore winds damaged 35% of the trembling aspen leaves and 29%

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of the white birch leaves north of North Rustico Harbour.

LEAF SCORCH can occur during periods of high temperature combined with windy conditions which causes sudden and rapid water loss from the leaves. Affected leaves exhibit dead, brownish areas along their margins and/or between the veins. This condition caused light and moderate (30-69%) marginal leaf browning this summer on scattered trembling aspen and white birch trees.

LATE FROST caused light and some moderate browning of the tender new shoots on white spruce and eastern larch trees in the Park. Moderate damage was observed on white spruce at Brackley Beach campground.

WINTER MOTH caused moderate and some severe (70+%) defoliation on wild apple, chokecherry, and lilac bushes in the Cavendish area of the Park.

UGLYNEST CATERPILLAR feeds mostly on black cherry and chokecherry and, although it is of little economic importance, it produces large, unsightly webs on its hosts. Nests were very conspicuous on chokecherry near campsites 80-85 in Rustico Island campground.

A **LEAF SPOT** of aspens and poplars, caused by the fungus *Drepanopeziza tremulae* Rimpau, produces small, dark brown, discrete spots. Numerous spots on leaves may cause general yellowing or browning, especially along the leaf margin and these leaves may drop prematurely from the tree. More than 80% of the leaves on all of the silver poplar at the Stanhope picnic park were infected this year but only 10-20% of the leaf surface was affected.

SPRUCE BUDMOTH feeds on the developing buds and new shoots from under the bud cap, which the insect secures to the growing shoot with silk. This insect damaged an average of 18% of white spruce shoots within the Park, the highest damaged being 28% at Cape Turner.

BIRCH SHOOTWORM damages white and grey birch by boring into the shoot above the petiole base, then tunnelling down the shoot. The shoot beyond the mine is often killed, although damage to the tree is generally negligible. Approximately 70% of white birch at the Cavendish campground were affected with 6-10 shoots killed per tree. Only trace damage was observed on white birch at the Rustico Island campground.

Some other pests of interest observed were:

EASTERN SPRUCE GALL ADELGID affected an average of 10% of white spruce shoots, highest damage being 16% at Cavendish campground; **SPRUCE NEEDLEMINER** damage was observed on an average of 9% of white spruce shoots, highest damage being 13% north of North Rustico Harbour; **SPRUCE BUD MIDGE** injured an average of 2% of the buds on white spruce, highest damage being 3% at Stanhope; **WHITE PINE WEEVIL** damaged an average of 1% of white spruce shoots; **CONEWORMS, CONE MAGGOTS**, and **CONE RUST** were found on 5-10% of white spruce cones examined; a **PINE BUD MOTH** was found on one tree in a red pine plantation at the Dalvay entrance; **BIRCH CASEBEARER** caused trace damage on an average of 20% of the white birch leaves; **POPLAR BORER** damage averaged 1-2 galls per branch on 4-5 branches per tree on trembling aspen; **FALL WEBWORM** nests were common in the late summer on roadside bushes within the Park.

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Forest Insect and Disease Survey
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